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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,818	07/15/2003	Kin Ming Kwan	2001-0793.02	7186

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LEXMARK INTERNATIONAL, INC.
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LEXINGTON, KY 40550-0999

EXAMINER

HARAN, JOHN T

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,818

Applicant(s)

KWAN ET AL.

Examiner

John T. Haran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/15/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to an apparatus for laser transmission welding process, classified in class 156.
 - II. Claims 11-14, drawn to a method for attaching a filter to a filter tower frame using a clamping fixture, classified in class 156.
 - III. Claims 15-20, drawn to an ink cartridge for an ink jet printer, classified in class 347.
 - IV. Claims 21-24, drawn to a method for attaching a filter to a filter tower frame wherein the frame and the filter have melting points within 30 degrees Celsius of one another, classified in class 156.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and IV and invention I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as welding plastic parts other than a filter to a filter tower frame, such as a lid to a container.

Inventions II and IV are distinct method combinations. Each invention relies on different elements for patentability not required by the other. Invention II requires a filter

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clamping fixture, whereas invention IV does not. Invention IV requires the filter and tower frame have melting points within 30 degrees Celsius of one another, whereas invention II does not.

Inventions I and III are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the product as claimed can be made by another and materially different apparatus such as one with an opaque pressing plate and an opening through which the laser can go through.

Inventions II and IV and invention III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, either the process of invention II or invention IV or other materially different processes.

3. Because these inventions are distinct for the reasons given above each group requires a search not required of the other groups, restriction for examination purposes as indicated is proper.

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4. During a telephone conversation with Neill Kahle on 5/16/05 a provisional election was made with traverse to prosecute the invention of Group IV, claims 21-24. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

6. The information disclosure statement (IDS) submitted on 7/15/03 has been considered by the examiner.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (US 2002/0191058) optionally in view of Fang et al.

Anderson et al is directed to a method of attaching a plastic synthetic filter to a polymeric filter tower frame by welding the periphery of the filter to the filter tower frame through a variety of welding methods, including laser welding (paragraphs 0003, and 0006-0010). Anderson et al is silent towards the specifics of the laser welding process, however it is well known and conventional when laser welding plastic materials together to press the materials together into intimate contact, directing a near infrared laser beam through a transparent plastic material to an opaque (absorbent) plastic material, which absorbs the laser beam and melts and causes the transparent plastic material to melt so the two become intermixed and are welded together upon cooling. Optionally, Fang et al is cited as an example of such (Column 2, lines 9-14 and 26-27 and Column 2, line 65 to Column 3, line 8).

One skilled in the art would have readily appreciated using conventional laser welding techniques when laser welding a plastic filter to a plastic filter tower frame. Furthermore, one skilled in the art would have readily appreciated that the plastic materials of the filter and frame would need to have melting temperatures within a certain range in order to make laser welding efficient and to avoid damage by overmelting one the plastics before the other plastic is melted. It would have been within the mechanical skill of the ordinary artisan to determine the appropriate range for the difference in the melting points in conjunction with the appropriate pressure range to be exerted during the heating process in order to obtain strong and structurally sound weld. It would have been obvious to one of ordinary skill in the art at the time the invention was made to laser weld the filter to the filter tower frame using a conventional

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laser welding process in the method of Anderson et al, such as pressing the materials together into intimate contact, directing a near infrared laser beam through a transparent plastic filter to an opaque (absorbent) filter tower frame, which absorbs the laser beam, and to do use plastics with appropriate melting temperatures and to press within an appropriate range in order to ensure a strong and structurally sound weld.

Regarding claim 22, one skilled in the art would have readily appreciated that the claimed range is within the near infrared range and that it would have been obvious to utilize such a range depending upon the transmittance properties of the plastic materials.

Regarding claim 23, one skilled in the art would have readily appreciated that the width of the weld and the welding speed are within the purview of one skilled in the art and one skilled in the art would have appreciated that the filter is small to begin with and the width should be narrow to avoid plugging more of the filter than is necessary and that the welding speed and is an important factor in achieving such.

Regarding claim 24, the listed laser welding methods are well known and conventional and it would have been obvious to use any of them in the method of Anderson et al.

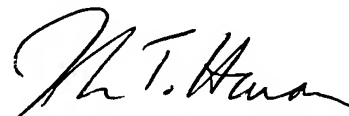
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John T. Haran whose telephone number is (571) 272-1217. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "John T. Haran".

John T. Haran
Examiner
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